

Local Environmental Protection and Trade: Hog Production in Canada and Mexico

Authors: L. Martin Cloutier, Paul J. Thomassin, Florence Dagicour, José-Carlos Rodríguez

The objective of this paper is to determine which mechanisms encourage sustainable hog production within NAFTA countries, while avoiding trade barriers. With the expansion of trade under NAFTA, a number of concerns have been flagged about its impacts on environmental protection. The paper first examines two regulatory approaches that can be used to encourage environmental protection: command and control (CAC) regulation or with industry-led voluntary initiatives. It then looks at how Canada and Mexico have used these methods to address the water, soil and air pollution engendered by the hog industry.

Both countries have used different economic instruments and institutions that address local public concerns about resource use and its effects on quality of life. Using case studies, the paper examines how the different approaches to environmental protection in Canada and Mexico have resulted in varying levels of efficacy in addressing the environmental concerns related to the hog industry in each country. By comparing the local and international pressures for environmental regulation, the paper then considers whether they are linked to trade imperatives.

Command and Control (CAC) versus Voluntary Business Environmental Management (BEM) Initiatives

The agricultural sector presents a unique pollution challenge to environmental protection. In most industries, a more direct cause-and-effect relationship between a pollutant and the environment can usually be identified and then addressed through point-source pollution abatement regulation. In the agricultural sector, most pollution is of a non-point-source nature and therefore more difficult to monitor and regulate. CAC policies are regulatory approaches that aim to constrain or limit the activities or behavior of an individual or organization. This approach is often difficult to enforce and can be costly.

Recent literature has stressed that voluntary approaches are better suited to address non-point source pollution issues in industries such as agriculture. They carry lower transaction costs and provide more flexibility for producers. Some analysts suggest that government-introduced market mechanisms might encourage firms to implement their own voluntary initiatives.

The efficacy of mandatory and voluntary initiatives for environmental protection varies, depending on the nature of the pollution, its spatial dimension and industry structure. A mixture of CAC and voluntary BEM initiatives is more likely to offer the most effective means of providing incentives for environmental protection. Regardless of how governments encourage use of voluntary initiatives, it is important that the monitoring regulatory agency be given a strong and credible threat of enforcement in the CAC regulation.

Hog Industry in Quebec and Mexico

Since agricultural practices relating to environmental protection fall under different jurisdictions in the Province of Quebec and in Mexico, environmental protection regimes have evolved differently in each place. Hog production in Quebec has grown steadily during the past twenty years, with a 46 percent increase from 1994–2001. The Quebec government has matched this growth with increased regulations for environmental protection. Believing that voluntary

approaches can increase the industry's flexibility to undertake more cost-effective initiatives for environmental protection, this has encouraged Quebec's hog industry to work towards developing its own voluntary mechanisms.

Hog production in Mexico peaked in 1985, at which time the government removed its feed subsidy program, and production subsequently had declined 43 percent by 1989. In response to this decrease, environmental legislation was rolled back as well. Although today's hog production in Mexico has returned to near-1985 levels, the government has not yet passed corresponding environmental legislation to meet the increased production, and Mexico's legal response to the need for environmental protection from hog production has been weak. While this is in part due to a weak policy of environmental protection, political and economic influences have played a significant role as well. However, with the prospect of an increase in hog production in Mexico and its corresponding rise in non-point source pollution, it can be expected that mandatory and non-mandatory regulations and financial instruments such as taxes and subsidies will be employed more intensively. This may encourage Mexico's hog industry to consider voluntary initiatives, taking the lead from Quebec's hog producers to better manage environmental protection.

Currently, trade restrictions for hog exports only target sanitary issues. However, as trade continues to expand under NAFTA, the need for environmental protection will create more pressure for Mexico to establish production standards similar to those in Canada and the United States. These trends suggest that the financial viability of environmental protection will play an increasingly important role in Mexico's hog production.